

**To:** Harris-Bishop, Rusty[Harris-Bishop.Rusty@epa.gov]; Smith, Paula[Smith.Paula@epa.gov]  
**From:** Harrison, Melissa  
**Sent:** Fri 8/14/2015 2:08:51 PM  
**Subject:** Re: CO Mine Clips - 8/14

Can you send the link?

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**From:** Harris-Bishop, Rusty  
**Sent:** Friday, August 14, 2015 10:03 AM  
**To:** Harrison, Melissa; Smith, Paula  
**Subject:** Fwd: CO Mine Clips - 8/14

I noticed in the Denver Post that there was an interview with Hays Griswold, explaining what happened up at the mine. I didn't know that had happened and wants to make sure y'all knew about it!

Rusty

Sent from my iPhone

Begin forwarded message:

**From:** "Ludwigsen, Emily" <Ludwigsen.Emily@epa.gov>  
**Date:** August 14, 2015 at 7:50:38 AM MDT  
**Subject:** CO Mine Clips - 8/14

Associated Press, Denver Post, Durango Herald (2), New York Times  
Colorado Public Radio, KOB

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**Associated Press (via Boston Globe)**

<https://www.bostonglobe.com/news/nation/2015/08/13/epa-test-results-show-mine-spill-unleashed-highly-toxic-stew/NJdNfpG1720yxwLHTbcP1N/story.html>

**EPA tests reveal toxic stew in flow from Colorado mine**  
Michael Biesecker, Matthew Brown and P. Solomon Banda  
August 14

SILVERTON, Colo. — The US Environmental Protection Agency announced Thursday that surface-water testing revealed very high levels of lead, arsenic, cadmium, and other heavy metals as a sickly-yellow plume of mine waste flowed through Colorado.

These metals far exceeded government exposure limits for aquatic life and humans in the hours after the Aug. 5 spill, which sent 3 million gallons of wastewater through three states and the Navajo nation.

The EPA, which released the results after 2 a.m. Eastern time under increasing political pressure, said its analysis shows the heavy metals quickly returned to “pre-event levels” once the plume passed through the area it tested, on the Animas River between Silverton, Colo., and the downstream municipal water intake for Durango.

The abandoned Gold King mine had been slowly leaking a toxic stew for decades before an EPA crew accidentally unleashed a torrent of waste during an Aug. 5 inspection. EPA Administrator Gina McCarthy has taken full responsibility and promised that the agency will pay for any damage.

The agency tested for 24 metals at the river’s surface. One of the most dangerous, lead, was found below the 14th Street bridge in Silverton at more than 200 times higher than the acute exposure limit for aquatic life, and 3,580 times higher than federal standards for human drinking water.

Levels of arsenic were more than 24 times the exposure limit for fish and 823 times the level for human ingestion. Cadmium was found at more than six times the aquatic limit, 33 times that for humans.

The 100-mile-long plume has dissipated, its metals settling into riverbeds, during the 300-mile journey toward Lake Powell, where the flow joins the Colorado River that supplies water to the Southwest.

McCarthy said Thursday that these results show that the river is restoring itself. She spoke during a visit to Farmington, N.M., where she announced that the EPA has released \$500,000 to supply clean water for crops and livestock in northwestern New Mexico.

McCarthy acknowledged the concerns of state, local, and tribal officials about the heavy metals now trapped in the river bed and along the banks, and promised to work on the sediment problem over the long term, but offered no specifics.

Outside specialists are warning of the potential for continued risk to wildlife and humans for many years as the toxic metals settle into river bottoms and seep into groundwater.

“Heavy rains or flash floods could release any lingering contaminated sediments now trapped in the Animas river bed,” said Marco Kaltofen, a Boston-based civil engineer specializing in water pollution.

Over the long term, these metals can seep into the water table, polluting drinking wells.

Attorneys general from Colorado, New Mexico, and Utah vowed to ensure citizens and towns are compensated, even if the full impact isn’t understood for many years.

“We have to be vigilant as attorneys general, as the lawyers for the state, as protectors of the environment, to be sure that the assurances that we received today from the Environmental Protection Agency are the same in two years, in five years, even 10 years when we discover what the damage to the environment actually is,” said Colorado’s attorney general, Cynthia Coffman.

The spill happened as an EPA-supervised crew inspected the Gold King mine, which was abandoned in 1923. There are hundreds of thousands of abandoned mines nationwide.

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### **Denver Post**

[http://www.denverpost.com/environment/ci\\_28638259/hurdles-remain-at-gold-king?source=infinite](http://www.denverpost.com/environment/ci_28638259/hurdles-remain-at-gold-king?source=infinite)

## **Animas River spill: Hurdles remain at Gold King**

Bruce Finley and Jesse Paul

August 14, 2AM

SILVERTON — Orange wastewater cascaded from the Gold King Mine on Thursday as heavy machinery echoed, digging a new waste pond.

Workers tossed chemicals into four existing ponds lined with plastic while Environmental Protection Agency responders walked around the cleanup site, now complete with portable toilets, a command post and pickup trucks moving in and out.

The EPA has yet to release its work order detailing precautions the crew was to take before the Aug. 5 spill. But other documents reviewed by The Denver Post show the EPA was acting on a growing awareness that state-backed work done from 1998 to 2002 on mines around Gold King had led to worsening contamination of Animas River headwaters.

The EPA was acting at Gold King after what, in an October document, the agency deemed a "time critical" effort to try to contain the increased toxic leakage — with elevated cadmium at 35 parts per billion, lead at 60 ppb and zinc at 16,000 ppb — from the nearby Red and Bonita Mine.

The state-backed work included plugging old mines with bulkheads, which state officials had allowed in a legal consent agreement with the owners of the Sunnyside Mine. The Sunnyside was one of Colorado's largest underground mines before it closed in 1991.

Before it was plugged, flows from the Sunnyside were reported to be approximately 1,700 gallons per minute. That wastewater had backed up into other mines, causing worse toxic discharges. According to an EPA document, water quality in the Animas River had "degraded progressively since that time."

EPA supervisor Hays Griswold, at the scene of the blowout Aug. 5, provided some details of what happened when his crew triggered a 3 million-gallon deluge of acidic wastewater laced with heavy metals.

The plan they had "couldn't have worked," Griswold said in a Denver Post interview.

"Nobody expected (the acid water backed up in the mine) to be that high."

A government work order typically addresses details of a job including procedures and precautions to be taken to minimize risks and avoid disasters.

Griswold said the crew was working at Gold King after looking at other nearby mines, to understand how to drain Gold King using a pipe. The mine's opening was blocked by loose dirt and rock.

It was unclear whether a drainage pipe already was in place.

San Juan Corp. president Todd Hennis, who bought the Gold King in 2005 and said he has looked at but never touched the portal of the mine, was aware of EPA intervention at the site.

Hennis said EPA crews began work last year on Gold King for fear it was filling up with acidic wastewater and had covered the main portal (elevation 11,458 feet) with dirt.

"Last year, they piled a large amount of dirt on the portal to prevent a blowout during the winter," Hennis said, "figuring they would come back (in 2015) and re-open it."

EPA-run crews had begun to install waste ponds at the nearby Red and Bonita Mine to try to trap toxic contaminants before they reached Cement Creek, where fish have disappeared.

Griswold said his crew's main intention last week was to work on the Red and Bonita Mine and that they had just gone to investigate the Gold King.

They started to dig away the dirt at the Gold King portal, where, Griswold said, weak rock around the portal had been collapsing.

"We were just investigating where we could put the pipe. We'd been digging out the debris, clearing the area out," he said, noting they were using a backhoe.

"We had found the hard rock I wanted to find overhead," he said. They stopped for a moment, shortly before 10:30 a.m.

"And all of a sudden, there was a little spurt from the top."

And then the mine blew.

"All that was holding it back was the dirt. The dirt just wasn't going to hold," Griswold said.

When a Durango resident last week asked for the work order, EPA chiefs acknowledged it was not accessible and said they would make it available. The Denver Post has been asking repeatedly for the work order. But despite promises, the EPA has not released it.

Colorado's director of abandoned mines reclamation work, Bruce Stover, said he was not at Gold King at the time of the blowout but recently looked at mines in the area in a technical support role to the EPA.

"We are trying to figure out what is going on and how to fix it. It is a vexing problem. ... Someday, there may be a water treatment plant up there. ... It's just a very difficult, complicated problem. We are trying to find out what the solution is. Not everybody is on the same page," Stover said.

"The whole idea was to get it to where we can contain it."

Griswold said Thursday the cleanup crews need to work quickly before winter, when avalanches, freezing temperatures and an eventual spring snowmelt could complicate their work.

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## **The Durango Herald**

<http://www.durangoherald.com/article/20150813/NEWS01/150819842/Retrieving-Durango%E2%80%99s-reputation->

### **Retrieving Durango's recreational reputation**

Herald Staff

August 14, 12:37AM ET

After more than a week of news coverage around the world about the Gold King Mine spill into the Animas River, the Durango Area Tourism Office wants to help tourism-based businesses convince potential visitors that there's still fun to be had here.

The office released a Frequently Asked Questions list to members Wednesday. Among the questions:

Is the drinking water safe? (Yes.)

Is the town of Durango closed? ("No, the Animas River is only one aspect of our town." It's "business as usual" and "there are numerous lakes and rivers for water recreation in the area.")

Is the river still orange? ("No, the images of discolored water circulating in the media are from the initial discharge almost one week ago ... the color has mostly cleared from the river.")

What about the air quality in the area? ("The Gold King Mine situation was not an airborne contamination. The air quality in the area is not currently affected by this incident.")

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## **The Durango Herald**

## **Data show widespread mining impacts**

Peter Marcus

August 14, 12:58AM ET

State health officials Thursday released a map that shows water-quality impacts to 1,645 miles of streams, possibly caused by mining activities.

The data come as the Durango community continues to recover from a devastating error by a crew contracted by the Environmental Protection Agency that sent an estimated 3 million gallons of mining wastewater into the Animas River on Aug. 5. The EPA-contract crew caused the spill while excavating the abandoned Gold King Mine near Silverton. The crew had planned to investigate necessary reclamation activities.

The map and data released by the Colorado Department of Public Health and Environment on Thursday show that the Gold King Mine is far from the only problematic location facing the state, resulting from historic mining activities all across Colorado.

Water-quality impairments include the presence of metals or a change in pH caused by a combination of mining impacts and underlying natural geology. When the Animas turned a mustard-yellow color from the spill, the water initially tested positive for spikes in lead, arsenic, cadmium, aluminum, copper and calcium. The pH also plummeted.

Lax regulations from the days of the mining boom in the state – dating back to the late 1850s – have allowed for contaminated waters to build up. The locations are primarily in historic mining districts, including 230 draining mines within the Colorado Mineral Belt. The belt runs from the mountains of Southwest Colorado to around the middle of the state, near Boulder.

There are 47 draining mines with active water treatment; 35 that are under investigation or being remediated; and 148 that likely impact water quality with no active water treatment.

Improvement efforts include source controls, like bulkheads, waste pile and tailing removal, active and passive water treatment, and other stream and ecosystem restoration projects.

From 2009 to 2014, the Colorado Division of Reclamation Mining and Safety spent more



than \$12.3 million – from a variety of federal, state and private funding sources – on mining-related water-quality improvement projects.

“Colorado is making progress to address the legacy impacts from historic mining operations, but additional funding and resources would speed that process considerably,” said Mark Salley, spokesman for the Colorado Department of Public Health and Environment.

One avenue officials can explore is declaring Superfund status, which injects large amounts of federal dollars into cleaning up the nation’s uncontrolled hazardous waste sites. When that was proposed for Gold King Mine, some in the Silverton community opposed the idea, suggesting that it could leave a black eye on the town.

But other communities that have pushed for Superfund status have blossomed into vibrant communities, including parts of Leadville, Idaho Springs and Breckenridge, to name a few.

Answering a question during a community meeting at Rotary Park in Durango on Tuesday, Gov. John Hickenlooper, a Democrat, said Superfund status should be included as a solution, but only with local stakeholders at the table.

“We’re going to look at everything, and I think everything is on the table.” Hickenlooper said. And he added, “Obviously a local community has to have a loud voice in that.”

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### **New York Times**

<https://news.google.com/news/story?cf=all&hl=en&pz=1&ned=us&q=Colorado+mine+spill&cf=all&ncl=dP6k7>

### **Colorado: Water Near Mine at Pre-Spill Toxicity**

Julie Turkewitz

Aug 13, 8:42PM ET

The water just below a Colorado mine that poured three million gallons of toxic waste into nearby waterways has returned to pre-spill levels of toxicity, officials said Thursday. The Environmental Protection Agency is still analyzing water farther along the spill's path — in New Mexico, the Navajo Nation and Utah. Officials in Utah said waste from the mine had probably reached Lake Powell, a major water storage facility for the region. E.P.A. officials have said they will have to monitor the spill's path for years to understand its full effect. The Gold King Mine, near Silverton, burst on Aug. 5 while workers contracted by the E.P.A. were conducting a field investigation of the mine, which had leaked for years. The agency has said it was responsible for the spill. Levels of metals including arsenic and lead jumped in local waterways as the contamination flowed down the Animas River and into the San Juan, angering many who use these rivers for drinking, irrigation and recreational activities. Colorado, New Mexico, Utah and the Navajo Nation declared states of emergency. The rivers remained closed Thursday.

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### **Colorado Public Radio**

<https://www.cpr.org/news/story/states-affected-gold-king-mine-spill-pressure-epa-cleanup>

### **States Affected By The Gold King Mine Spill Pressure EPA On Cleanup**

Grace Hood  
August 13

State and federal authorities are clashing over how best to respond to the Gold King Mine spill, which was triggered by a crew of Environmental Protection Agency contractors who were doing clean up at the long-unused mine last week.

But even as the agency takes full responsibility for what happened, it is coming under fire for what critics are calling its slow response.

"No agency could be more upset about the incident happening or more dedicated in terms of doing our job and getting this right," said EPA Administrator Gina McCarthy, who traveled to the Durango on Wednesday to meet with local officials.

The spill was triggered Aug. 5. near Silverton and the orange plume of wastewater laced with arsenic and lead was shocking to southwestern Colorado residents after it flowed down Cement Creek and contaminated the Animas River. It's since flowed into the San Juan River in New Mexico headed toward Lake Powell.

The Animas and San Juan rivers have been closed to boaters and swimmers ever since. Rafting companies have been temporarily out of work. Farmers can't use the water for their crops. In a bit of good news, McCarthy said water quality results in the Durango Colorado area were showing that levels have returned to conditions before the spill.

"So this is very good news. But I want to make sure you understand that there are additional steps that we are going to take," she said.

McCarthy did not address the contaminants that experts say remain in the river beds.

Colorado and New Mexico residents have become frustrated with what they see as a slow EPA response, one that has left states to take matters into their own hands.

While the EPA said the rivers won't reopen until next Monday, Colorado Gov. John Hickenlooper said he thinks the river could open in a few days. And on Wednesday, Colorado gave the green light for Durango to start processing tap water from the Animas River.

"It is the type of response and communication that I am concerned about," said Cynthia Coffman, the attorney general of Colorado. She, along with the attorneys general for Utah and New Mexico say they're watching the EPA closely. And they won't hesitate to apply legal pressure if it's needed.

"It may take a lot of attention from citizens here and from the attorneys general to make sure that things are done, and done properly," Coffman said.

New Mexico Attorney General Hector Balderas says he was happy to hear that the EPA will seek independent oversight when it investigates the Gold King Mine incident. Balderas also says he's evaluating whether the EPA plan to address environmental concerns after the spill is adequate for New Mexico.

"We would hope that they would welcome feedback in terms of whether additional resources will be needed," he said.

Utah Attorney General Sean Reyes says his state hasn't seen any acute effects from the spill. But it's the orange sediment on the banks and at the bottom of the river that worries him.

"Who knows long term in terms of a chronic problem how that's going to affect everyone. That's our biggest concern probably right now," Reyes said.

The attorneys general say they'll be watching the effects over the next two to five years to ensure that land is restored and residents are compensated damages.

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### **KOB**

<http://www.kob.com/article/stories/s3878389.shtml#.Vc3rqvIVhHz>

### **EPA chief on Animas River: Sediment will be agency's long-term responsibility; Congressman Lujan talks**

Elizabeth Reed

August 13, 8:45PM ET

Environmental Protection Agency Administrator Gina McCarthy spoke in Farmington Thursday about the conditions of the Animas River following the Gold King Mine waste spill last week.

McCarthy announced Thursday that \$500,000 has been issued to aid the immediate need for water for irrigation and livestock in the Four Corners.

At the press conference, McCarthy said the EPA is working with the state and Navajo Nation to make sure farmers and other residents are getting those resources.

The EPA has also set up a hotline for the public to call with questions about the Animas River: 1-844-607-9700. U.S. Rep. Ben Ray Lujan said there are representatives who speak

English, Spanish and Navajo answering calls.

McCarthy also discussed water quality of the Animas River, saying the agency continues to see good news in terms of metal levels, but that sediment testing is ongoing.

"The EPA is in it for the long haul as we look at sediment challenges," McCarthy said.

#### LA PLATA CO. TESTS SEDIMENT

La Plata County officials said EPA technicians took 19 sediment samples Tuesday and had shipped them all by Wednesday. Results from those samples are expected by Sunday, according to La Plata County.

Wednesday evening, La Plata County officials began inspecting and flushing select irrigation ditches. This is a step toward opening irrigation for farmers and ranchers who depend on Animas River water for their crops and livestock. In the North Animas Valley, the Reid Ditch and West Animas Ditch were flushed Wednesday and work is currently being done on additional ditches south of Durango.

"The two ditches north of Durango had very little sediment, but after opening the head gates for flushing, those ditches produced a slight, temporary change in color of the Animas River, as we expected, that should arrive in Durango City limits mid-day today," said Butch Knowlton, Office of Emergency Management Director in La Plata County.

Operators of ditches that take water from the Animas River are asked to call the Call Center at 970-385-8700, open from 8 a.m. to 6 p.m., and provide names and phone numbers so officials can coordinate opening of the river head gates. Individual water users are on the ditches and canals are asked to keep their gates closed until notified.

Wednesday, the city of Farmington announced all metal levels except lead had returned to acceptable drinking water standards in the Animas River.

Allowable lead content is 15 micrograms per liter, and lead levels were at 15.4 micrograms per liter Monday.

## CONTRACTOR'S ROLE QUESTIONED

McCarthy was also questioned about the contractor who caused the Gold King Mine spill. The Wall Street Journal identified the contractor as Environmental Restoration LLC, a Missouri-based company.

McCarthy reiterated that the EPA was taking full responsibility for the incident and said the contractor was working under the direction of the agency and the Colorado Bureau of Reclamation, Mining and Safety. She said the EPA was reviewing what led to the incident and would also seek an independent review.

In regards to the thousands of abandoned mines across southern Colorado and New Mexico, McCarthy told reporters the issue needs to be looked at on a larger scale, but that it would take a long-term conversation that would also need congressional input.

"The 3 million gallons (in the Gold King Mine) weren't the EPA's. We need to make sure there isn't another spill waiting to happen," she said.

The EPA has put their investigations into other mines on hiatus while reviewing the Animas River spill.

## CONGRESSMAN BEN RAY LUJAN TALKS EFFECTS IN NM

Rep. Ben Ray Lujan, D-NM, represents Farmington and the communities around it in Congress, and stood side-by-side with EPA administrator Gina McCarthy Thursday.

"There is a very real frustration in our community right now," Lujan said. "It started because there was a lack of communication up in Colorado."

People are upset it took the EPA's top boss nine days to finally make it to New Mexico and that the long-term effects of the spill still aren't known.

"There can always be more done," Lujan said.

There's an expectation in the Four Corners that Lujan shouldn't let the EPA off easily, and that he closely monitors every step of the cleanup efforts.

"I'm communicating to the Energy Committee and to the Commerce and Resource Leadership that we need immediate oversight hearings in this area," Lujan said. "We're communicating to the White House and to the president to make sure have support from the administration to release resources and fully account for what's happened on the ground."

Since the EPA acts as the chief regulators on the environment, residents expect Congress to regulate the EPA.

"There has to be full accountability with the EPA on this. The EPA administrator was clear - not only today - but has been in the last few days, that the EPA takes full responsibility. But there is also oversight responsibility by the Congress," Lujan said.

The color in the Animas River in Farmington has returned to normal, but contaminated sediment remains. The long-term effects of the remaining sediment is unknown.

Emily Ludwigsen

Environmental Protection Agency

Office of the Administrator

Office of Media Relations Intern

[Ludwigsen.emily@epa.gov](mailto:Ludwigsen.emily@epa.gov)

(202) 564-7594

